

Device and process for the heat insulation of at least one underwater pipe at great depth

ABSTRACT

5 The present invention relates to a device for the heat insulation of at least one
underwater pipe (1) intended to be laid on the sea bed at great depth, comprising an insulating
coating surrounding the latter and a protective envelope (3), characterized in that said
insulating coating comprises a virtually incompressible liquid/solid phase change material (4)
with a melting temperature T_0 higher than that T_2 of the medium surrounding the pipe in
10 operation and less than that T_1 of the effluents circulating in the pipe, and said material (4)
preferably being impregnated in an absorbent matrix (2) surrounding the pipe (1), preferably
nearest its outer surface, which protective envelope (3) is resistant and deformable and ensures
a containment against and about said insulating coating.

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